

**Remarks**

The Objection to Claims 42, 48, and 49

The objections to Claims 42, 48, and 49 have been noted and appropriately corrected by cancellation and amendment pursuant to this paper. Reconsideration and withdrawal of the objections to Claims 42 and 48 are courteously requested.

The Rejection of Claims 50-52 Under 35 U.S.C. § 112

Claims 50-52 have been cancelled without prejudice, rendering this rejection under 35 U.S.C. § 112 moot.

Additionally, amended Claim 32 further clarifies the alleged indefinite expression “detection image”. A conventional transmitted or reflected light microscopic image is an image of the observed structure as a whole. The image is generated in accordance with the techniques of conventional photomicrography. In Applicant’s invention, the image is captured digitally, as opposed to captured on photographic film.

The image captured for comparison to the conventional microscopic image is an image of the detection of the particles bound to the structure. The particles are identified and observed by the effects generated when the illumination light acts on the particles. Support for this description is contained in the Detailed Description of the Invention. Paragraph 10 recites, “...the structure or structures involved are detected via detection of the particles bound in or on the preparations and thus to the structures in question.” Paragraph 12 further discloses, “...said particles being detected by utilization of the Mie scatter occurring on the particles. The

phenomenon of the Mie scatter is thus used in a manner according to the invention to detect the particles assigned to the structures and thus to detect the structures themselves.” It should be noted that the effects of the light interaction with the particles may be observed in the form of Mie scatter, Mie reflex, or plasmon signals.

The Rejection of Claims 32, 36-38, 43-45, 47-51, 53, and 54 Under 35 U.S.C. § 102(a)

The Examiner has rejected Claims 32, 36-38, 43-45, 47-51, 53, and 54 under 35 U.S.C. § 102(a) as being anticipated by United States Patent No. 6,180,415 B1 (*Schultz*). Applicant respectfully traverses this rejection and requests reconsideration.

Applicant courteously submits that *Schultz* does not teach the specific sequence of steps of Applicant’s Claim 32 within the framework of 35 U.S.C. § 102(a). That is to say, the rejection is based on the piecemeal selection of elements scattered throughout the reference and assembled according to the format of Applicant’s claims. For example, the Examiner interprets *Schultz* to teach the use of both a detection image and a conventional microscopic image. *Schultz* teaches “the detector serves to detect spectral emission characteristics of individual plasmon resonant particles (PREs) and other light-scattering entities in the field” (Col. 18, Lines 15-17). Later, *Schultz* discloses the image processing comprises two steps: 1) the detector determines the values of spectral emission characteristics; and, 2) a computer image of these values and their corresponding field positions is generated (Col. 18, Lines 34-42). Throughout *Schultz*, the image processing function is described as constructing “a computer image of the positions and values of one or more spectral emission characteristics measured by the detector”

(Col. 15, Lines 54-56). *See also* Col. 18, Lines 20-55. Although *Schultz* does refer to conventional microscopy illumination methods, the patent discloses their use as a means to generate spectral emissions, not to illuminate for the purpose of obtaining a conventional microscopic image. Further, *Schultz's* analysis arises from the combination of multiple detection images, not the combination of a detection image and a conventional microscopic image. Hence, *Schultz* is not a full anticipation of Applicant's claimed invention. This is particularly the case in view of amended Claim 32 parts C & D, wherein Applicant recites the recording of a detection image and a conventional microscopic image and the analysis of the combination of these images, it follows that Claim 32, and its trailing dependent claims, are not anticipated by *Schultz* under Section 102(a). Additionally, because *Schultz* does not disclose obtaining or using a conventional microscopic image, Applicant's Claim 32 is also non-obvious in view of *Schultz*.

In view of the foregoing remarks and amendments to the claims, reconsideration and withdrawal of the rejection as being anticipated by *Schultz* are courteously requested.

The Rejection of Claims 32, 37, 38, 43, 50, and 51 Under 35 U.S.C. § 102(a)

The Examiner has rejected Claims 32, 37, 38, 43, 50, and 51 under 35 U.S.C. § 102(a) as being anticipated by United States Patent No. 6,214,560 B1 (*Yguerabide*). Applicant respectfully traverses this rejection and requests reconsideration.

*Yguerabide* discloses, "the method and associated apparatus are designed to maximize detection of only scattered light from the particles and thus is many times more sensitive than use of fluorophores, or the use of such particles in methods described above" (Col. 10, Lines 12-16). Additionally, as in *Schultz*, *Yguerabide* discloses only the detection of the particles, with no

teaching of the capture of a conventional microscopic image. Therefore, because there is no teaching of conventional microscopic image capture and because the optimization of *Yguerabide's* invention for scattered light detection would limit the capability to capture a photomicrograph, there is no motivation to combine a detection image and a conventional microscopic image for the purpose of analysis. Hence, Claim 32, and its trailing dependent claims, are not anticipated by *Yguerabide*. Additionally, because *Yguerabide* does not disclose obtaining or using a conventional microscopic image, Applicant's Claim 32 is also non-obvious in view of *Yguerabide*.

In view of the foregoing remarks and amendments to the claims, reconsideration and withdrawal of the rejection as being anticipated by *Yguerabide* are courteously requested.

The Rejection of Claims 34 Under 35 U.S.C. § 103(a)

The Examiner has rejected Claim 34 under 35 U.S.C. § 103(a) as being unpatentable over *Schultz*. Applicant respectfully traverses this rejection and requests reconsideration for the following reason.

As Examiner has indicated, dependent Claim 34 contains all of the limitations established in independent Claim 32, due to its dependency therefrom. As previously mentioned, Claim 32 is not anticipated by and is non-obvious in view of *Schultz*. Therefore, it follows that Claim 34 is also non-obvious in view of *Schultz*, due to its dependency from Claim 32. Accordingly, withdrawal of the rejection of Claim 34 under 35 U.S.C. § 103(a) would be entirely appropriate.

The Rejection of Claims 33, 35, and 39-42 Under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 33, 35, and 39-42 under 35 U.S.C. § 103(a) as being unpatentable over *Yguerabide*. Applicant respectfully traverses this rejection and requests reconsideration for the following reason.

Dependent Claims 33, 35, and 39-42 contains all of the limitations established in independent Claim 32, due to their dependency therefrom. As previously mentioned, Claim 32 is not anticipated by and is non-obvious in view of *Yguerabide*. Therefore, it follows that Claims 33, 35, and 39-42 are also non-obvious in view of *Yguerabide*, due to their dependency from Claim 32. Accordingly, withdrawal of the rejections of Claims 33, 35, and 39-42 under 35 U.S.C. § 103(a) would be entirely appropriate.

The Rejection of Claim 46 Under 35 U.S.C. § 103(a)

The official action provides for the rejection of Claim 46 under 35 U.S.C. § 103(a) as being unpatentable over *Yguerabide*, in view of United States Patent No. 4,169,676 (*Kaiser*). Applicant respectfully traverses this rejection and requests reconsideration for the following reason.

As Examiner has indicated, dependent Claim 46 contains all of the limitations established in independent Claim 32, due to its dependency therefrom. As previously mentioned, Claim 32 is not anticipated by and is non-obvious in view of *Yguerabide*. Additionally, *Kaiser* does not contain the missing element, i.e., the combination of a detection image and a conventional microscopic image. In order to establish a **prima facie** case of obviousness under Section 103, the references must teach all the elements of rejected Claim 46, which they do not. Furthermore,

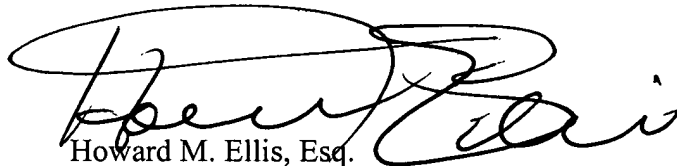
there is no motivation to combine *Yguerabide* with *Kaiser* or change what is taught by these references. Therefore, it follows that Claim 32 is non-obvious in view of *Yguerabide*, and further in view of *Kaiser*. Hence, Claim 46 is also non-obvious in view of *Yguerabide*, and further in view of *Kaiser*, due to its dependency from Claim 32.

Withdrawal of the rejection of Claim 46 for reasons of obviousness is courteously requested.

**Conclusion**

For all the reasons outlined above, Applicant respectfully submits that the claims as amended are now patentable over the cited art and in condition for allowance, which action is courteously requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Howard M. Ellis", with a large, stylized flourish at the end.

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